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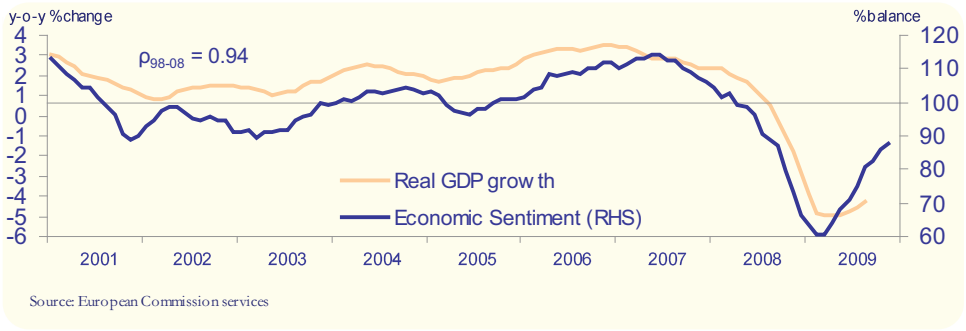
European business cycle indicators

- The Economic Sentiment Indicator continues to rise
- Consumers more cautious
- All the larger euro area Member States report improving sentiment
- Special Focus: the bi-annual industrial investment survey signals drastic cuts

Economic sentiment indicators

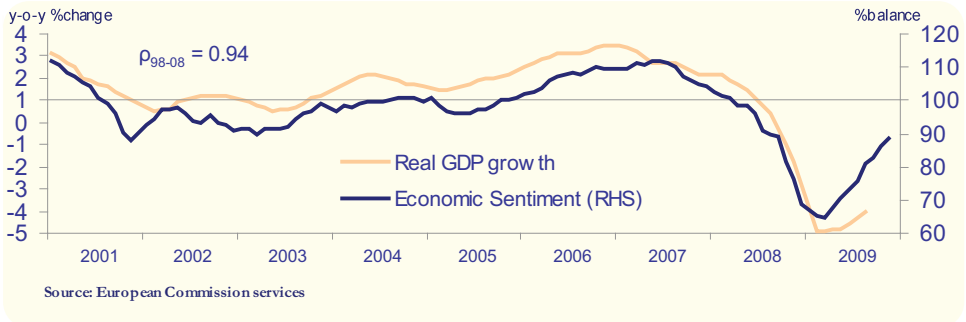
The Economic Sentiment Indicator (ESI) for the EU and the euro area improved further in November, although the increase was smaller then the one registered in October. It now stands at 87.9 (+1.9) for the EU and 88.8 (+2.7) for the euro area, which is still below its long-term average. The upward trend in the indicator signals improving (although still negative) year-on-year GDP growth in the coming quarter (Graphs 1a and 1b).

GRAPH 1a: ESI and GDP growth for the EU



Source: European Commission services

GRAPH 1b: ESI and GDP growth for the euro area



Source: European Commission services

Note 1 : in rhs 100 = average 98 to date

Note 2: both series are plotted at monthly frequency. GDP monthly data are obtained through a linear inerpolation of quarterly data.

The European Business Cycle Indicators note provides short-term analysis based on Business and Consumer Survey data. It appears monthly, using the latest available data.
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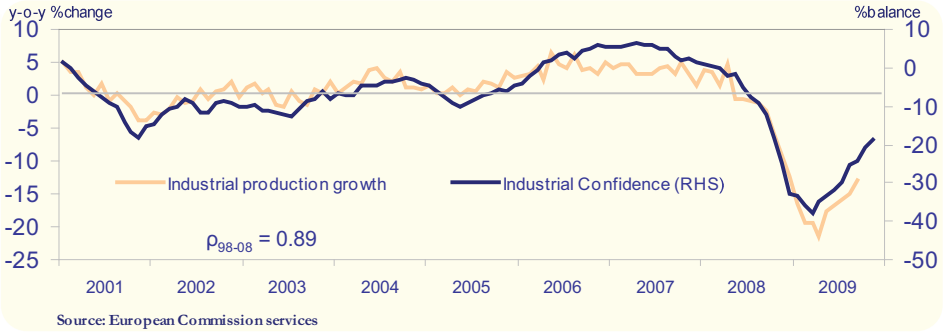
In the euro area the increase in the ESI was driven by an overall improvement in confidence. Regarding individual sectors, the Industrial Confidence Indicator gained 2 points in November - largely due to a sizable increase in production expectations. Managers' assessment of their order books and the level of their stocks also showed an improvement, albeit more modest. It should be noted, however, that even though managers' assessment of their order book has been on an upward trend since July, the balance remains well below the long-term average. These developments signal a slowdown in the (y-o-y) contraction of industrial production (Graph 2).

GRAPH 2: Industrial Confidence Indicator and industrial production for the euro area



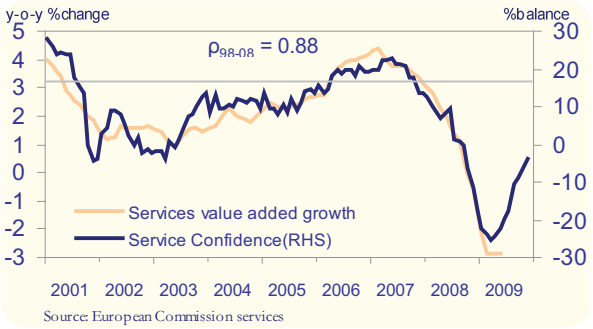
Source: European Commission services

Note: in rhs 100 = average 98 to date

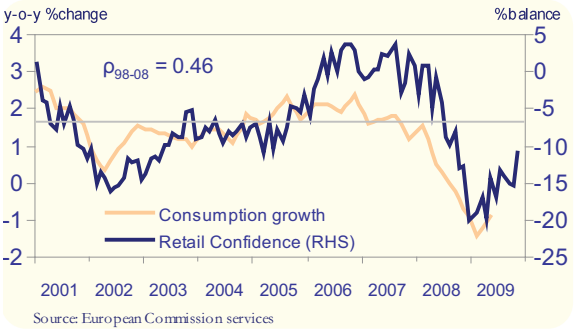
In November, all sectoral confidence indicators improved (Graph 3). However, they still stand well below their respective long-term averages, which suggest subdued development across the sectors. Confidence in retail trade picked up by 4 points. The services and the construction confidence indicators both increased by 3 points, while the consumer confidence indicator rose only marginally.

According to the bi-annual industrial investment survey, which was carried out in October and November of 2009, managers in most Member States expect to reduce their investment volumes by 6% in the euro area in 2010 compared to 2009 (see the Special Focus in this issue for more detailed information).

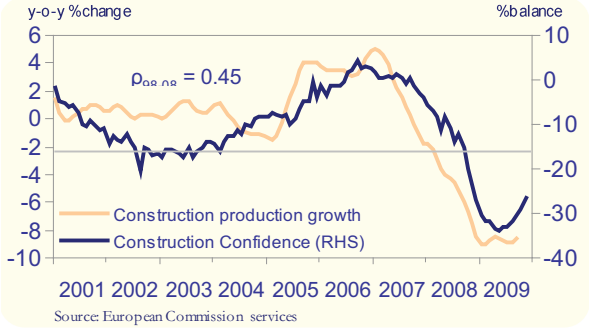
GRAPH 3: Sectoral Confidence Indicators and reference series for the euro area



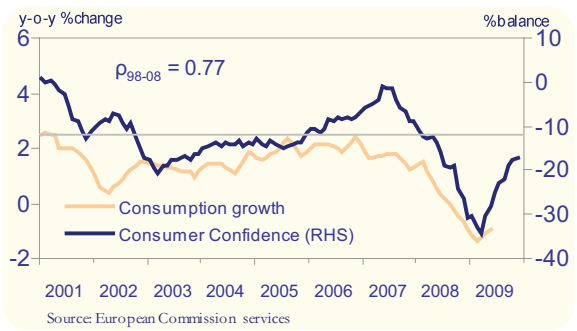
Source: European Commission services



Source: European Commission services



Source: European Commission services



Source: European Commission services

Economic sentiment indicators for the larger euro area Member States and the UK

ESI developments on the country level are encouraging, with the sentiment improving in all the larger euro area Member States (Graph 4).

Sentiment improved in Italy by 2.5 points. Strong gains in services, retail trade and construction were the main drivers of the overall improvement. Confidence among consumers improved slightly while it remained stable in industry.

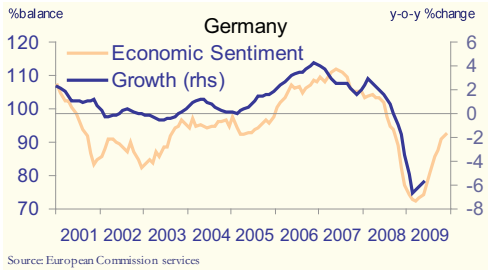
Sentiment rose also in France (+2.2), thanks to improvements in industry and retail trade. Confidence in services remained broadly stable, while it decreased among consumers and in construction.

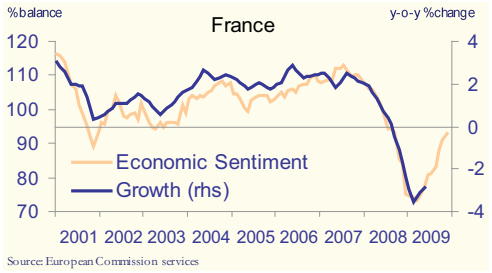
The ESI continued to increase in Germany (+1.7), but the pace was slower than the month before. Confidence improved in all business sectors, while it registered a sizable drop among consumers, putting a halt to the positive trend witnessed since May. This was influenced by more widespread unemployment fears.

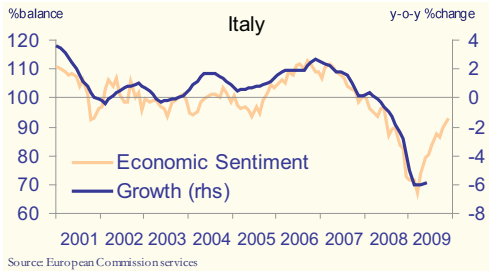
Spain was not much behind with an increase of 1.4 points. The increase was primarily due to a sizeable rebound in services and construction. However, industry and retail trade saw a slight decline and confidence among consumers was unchanged.

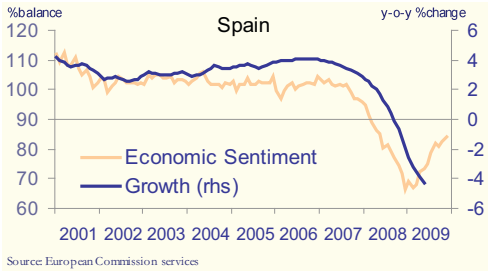
On the contrary, sentiment declined in the UK (-2.9), due to a sizeable drop in services and a very modest gain in industry. Only retail trade witnessed a significant improvement, while confidence in contruction and among consumers stayed unchanged.

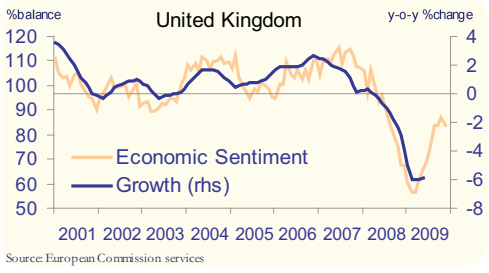
GRAPH 4: ESI and GDP growth (year-on-year) for the 4 larger euro area Member States and the UK









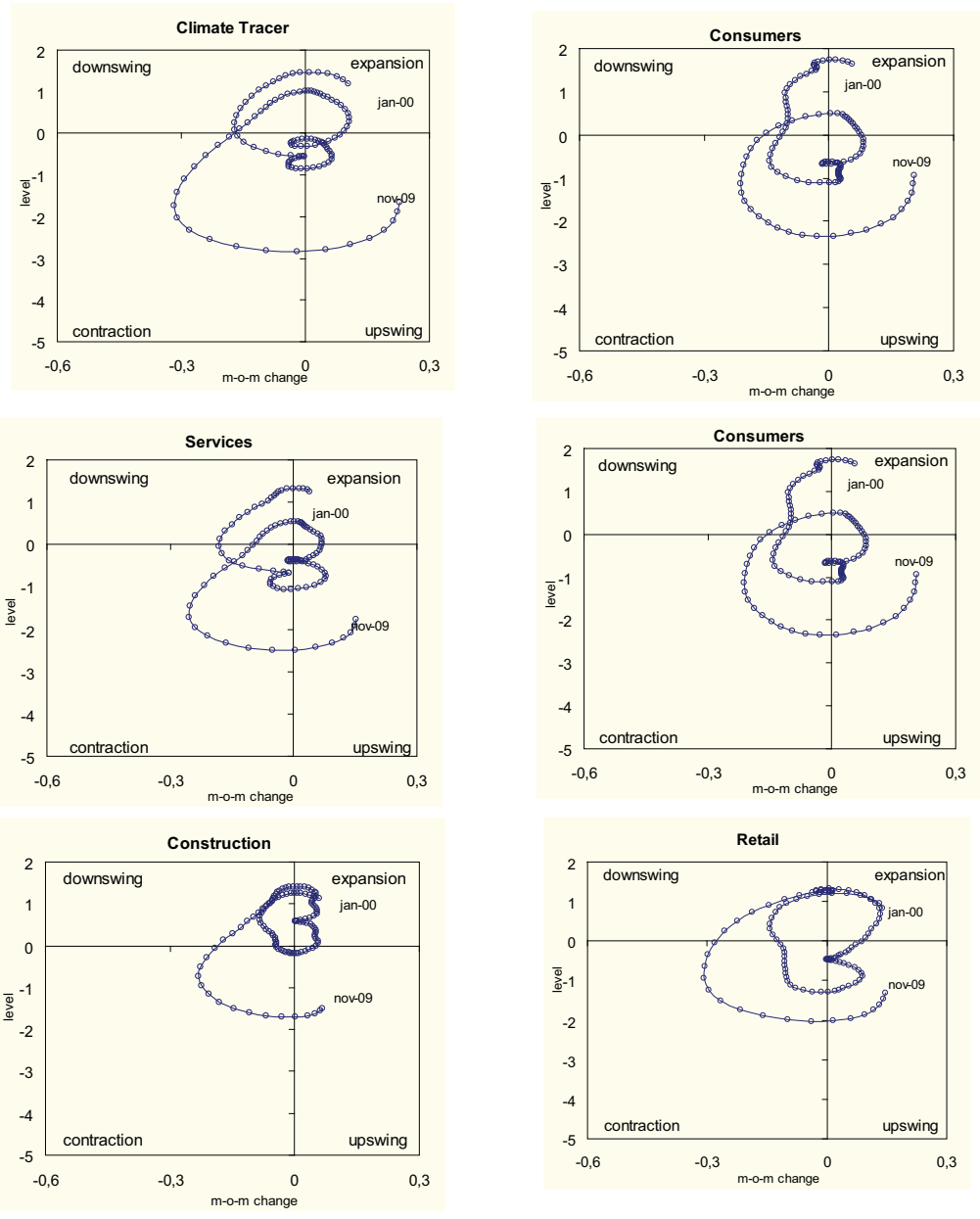


The economic climate tracer

Graph 5a displays the cyclical movements for the euro area, based on the Economic Climate Tracer (smoothed values). The economic climate tracer for the euro area, despite its low level, is now firmly in the upswing quadrant. All sectors are now in the upswing phase as well.

In this section, the results of the Economic Climate Tracer are shown (both cyclical movements and cross-section). The graphs presented hereunder depict results of a two-step procedure (see Annex 1 for details) involving a larger set of series than in the ESI. As a consequence, the message could differ from the above analysis, especially because the Economic Climate Tracer series are smoothed.

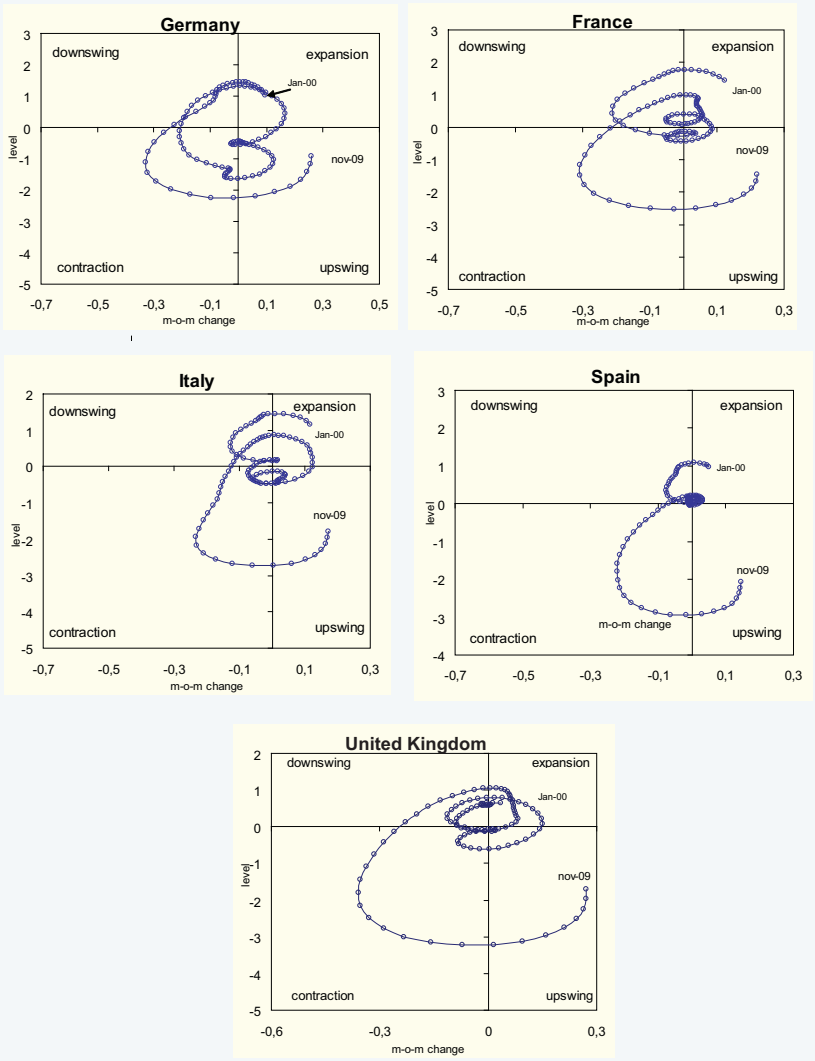
GRAPH 5a: Economic Climate Tracer across sectors, euro area



Source: European Commission services.

Graph 5b displays the Economic Climate Tracer for the 4 larger euro area Member States and the UK.

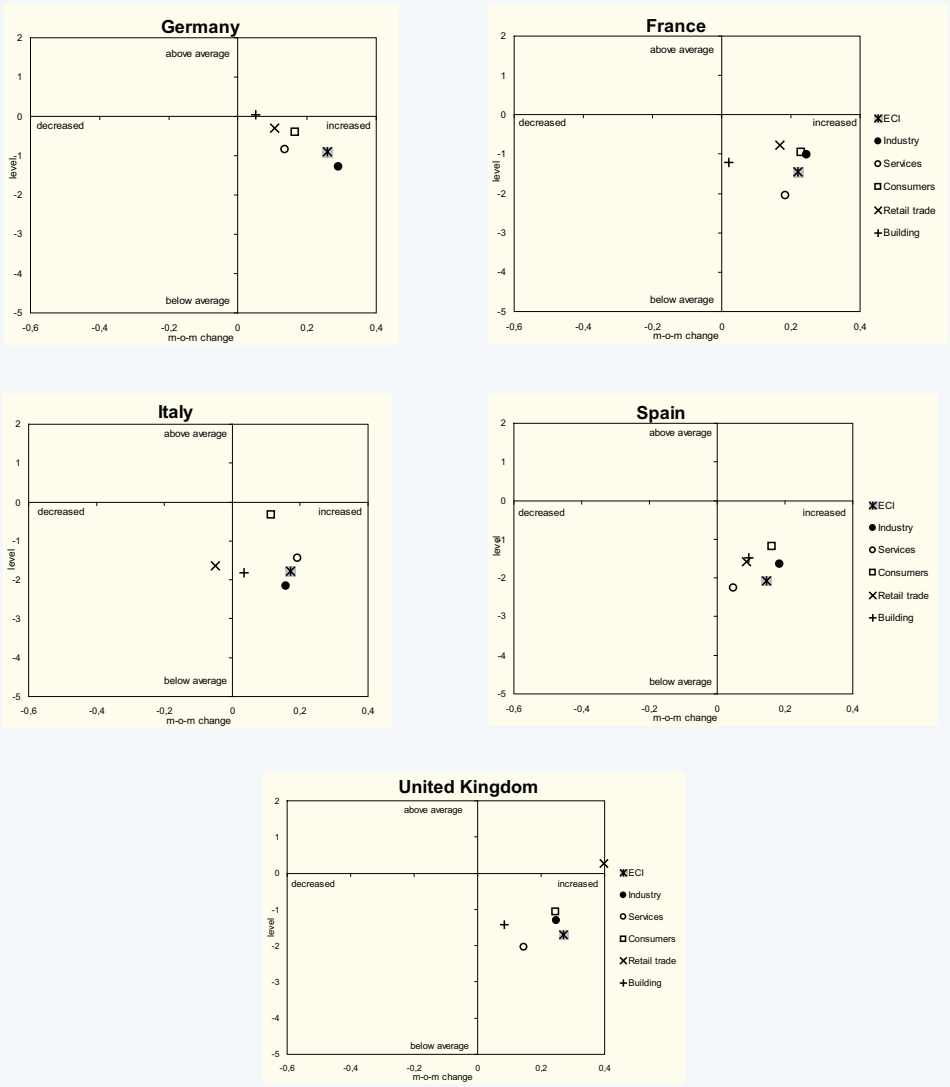
GRAPH 5b: Economic Climate Tracer for the 4 larger euro area Member States and the UK



Source: European Commission services.

Graph 6 shows the cross-section Economic Climate Tracer. All the sectoral climate tracers for Germany, France, Spain and the UK are in the upswing quadrant. Both the construction in Germany and the retail trade indicators in the UK are already in the expansion area. On the other hand, in Italy, retail trade is still trailing in the contraction zone in stark contrast to the relatively positive position of consumers.

GRAPH 6: Cross-section Economic Climate Tracer for the 4 larger euro area Member States and the UK

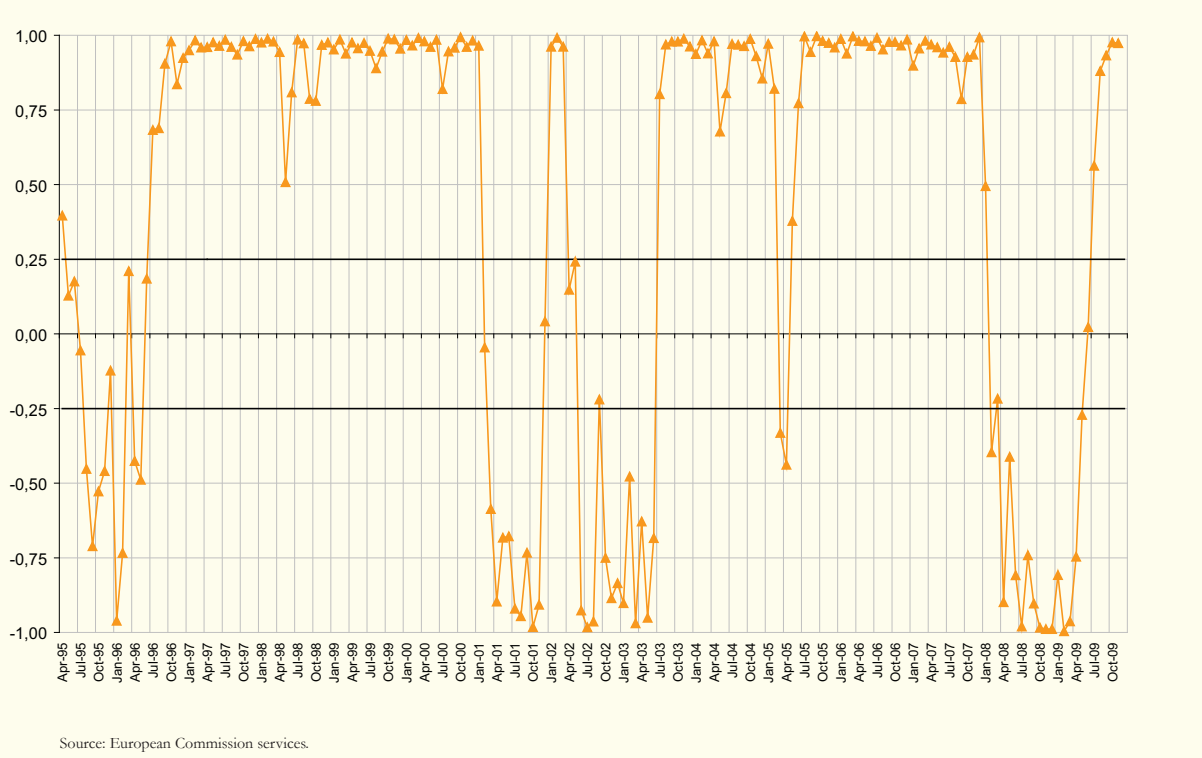


Source: European Commission services.

Euro area turning point index

Based on the most recent (November) survey data, the indicator-based Markov Switching model produces a Turning Point Index (TPI) which estimates the probability difference between high and low regimes to be 0.98 in November, broadly stable compared to October. This TPI value remains in the favourable phase (see Annex 1 for details).

GRAPH 7: Turning Point Index for euro zone



Source: European Commission services.

Results of the autumn EU investment survey in the manufacturing sector

by Roberta Friz

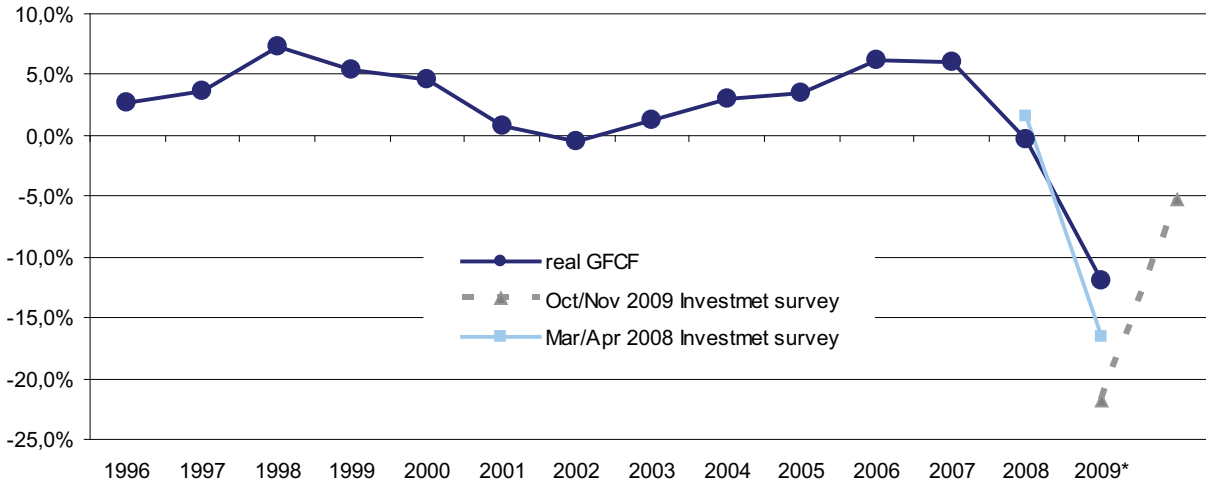
This month's special focus presents the latest Investment survey results for the EU and large Member States, conducted in October and November 2009.

In this survey, firms are requested to reveal their investment expectations for the current and the next year.

Developments in overall investment

According to Eurostat, investment declined by 0.3% in real terms in 2008. This is the first reduction after several years of sustained growth. In the first half of 2009, investments diminished by around 12% compared with the first half of 2008. According to the Investment survey, investment in the EU is expected to shrink by almost 22% in 2009, which would amount to the largest contraction ever seen since the beginning of the survey in 1985. Compared with the survey conducted in March/April this year, the drop in investment for 2009 is expected to be 5 percentage points larger (see Chart 1). Concerning 2010, managers expect a further contraction in investments of around 5%. Results are very similar for the euro area.

Chart 1: Growth in Real Gross Fixed Capital Formation (GFCF) and surveyed change of investments in the EU, annual percentage changes



Source: Commission services.

* In order to compare surveyed changes of investment to real investment growth, as measured by gross fixed capital formation (GFCF), the surveyed percentage change of investment is deflated by the deflator of equipment investment in the AMECO database.

1 Since November 2008, in order to provide more timely results the delivery of data to the Commission has been accelerated by two months relative to previous practice, while maintaining the sample period (October/November) unchanged. Key figures from the autumn survey have been published within the ESI press release of 27 November 2009.

2 More precisely, the autumn questionnaire asks for the percentage change in investment of the company from year t-1 to t and from year t to t+1.

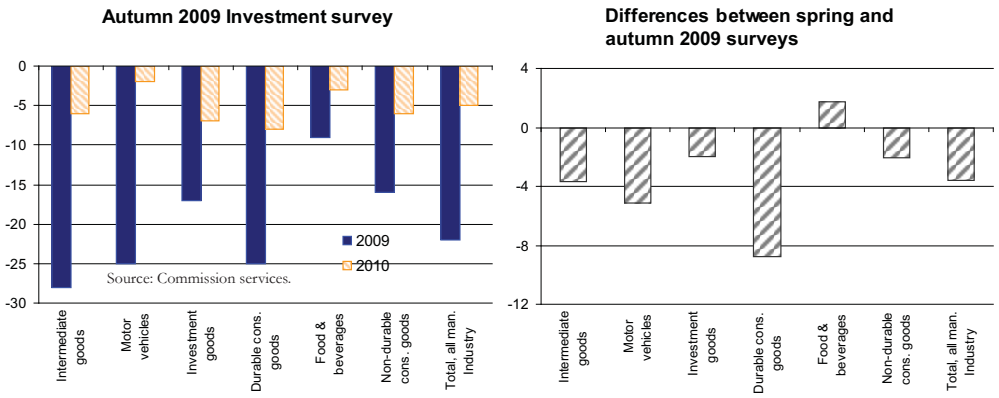
Investment dynamics by sectors

Looking at the sectoral breakdown (see Chart 2), the envisioned sizable contraction of investment will affect all the sectors and the reduction will be particularly severe for investment related to the production of Intermediate and Durable consumer goods, declining by 28% and 25%, respectively. Among Consumer goods, the Motor Vehicle sector is foreseen to contract by 25%. The Investment goods sector is also expected to experience a sharp decline of 15% in 2009.

The outlook is more pessimistic compared with spring 2009, especially among managers in the durable consumer goods sector; for food and beverages, however, the decrease in investment appears to be somewhat smaller than it was expected at the beginning of the year (see right graph in Chart 2).

The contraction in investment is expected to affect all sectors in 2010 as well. Managers in the sectors of durable consumer goods and investment goods sectors are expecting a further drop of -8% and -7% respectively.

Chart 2: Surveyed change of investments in the EU by sectors, annual percentage changes

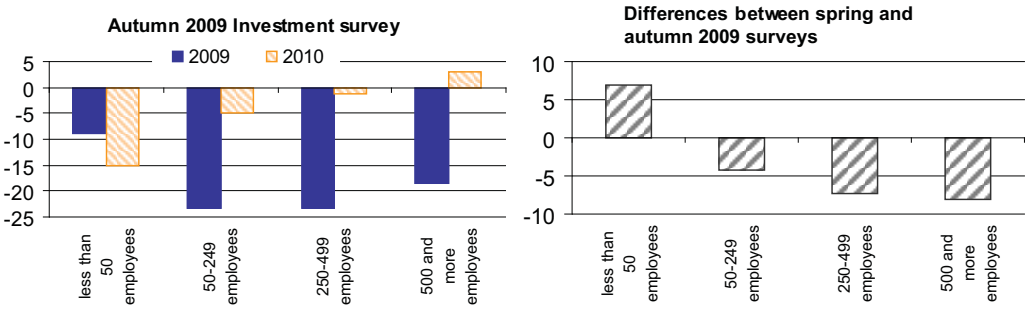


Source: Commission services.

Investment by class of enterprises

According to the survey, enterprises of all sizes are expected to experience significant contractions in investment in 2009 (see Chart 3), but the decline is expected to be more severe among medium and large enterprises (employing between 50 and 250, and between 250 and 500 people), declining by around 23% in both segments. Big companies (500+ employees) also plan to reduce investment sharply in 2009 (by 19%). The biggest downward revisions for 2009, compared to the spring survey, were registered in the segments of large and big businesses, while small enterprises revised their investment plan upward compared to the spring survey.

Chart 3: Surveyed change of investments in the EU by size, annual percentage changes



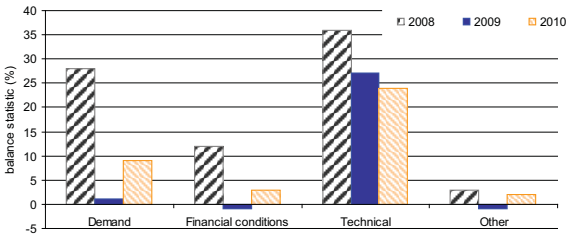
Source: Commission services.

Concerning 2010, small enterprises expect to decrease their investments by a further 15%, while large enterprises with more than 500 employees expect to increase their investments by 3%.

Factors influencing investments

The Investment survey also provides information on the factors influencing investment, namely: demand, financial conditions, technical (e.g. technological factors and the availability of labour) and other factors (e.g. taxation and the possibility of moving production abroad). In both 2009 and 2010, technical factors are the main drivers of investment in the EU (see Chart 4). Demand and financial conditions that had positively influenced investment in 2008 worsened in 2009, with financial conditions and other factors becoming the limiting factors. In 2010, however, all the factors will again contribute positively to investment.

Chart 4: Factors influencing investments, balance statistic*



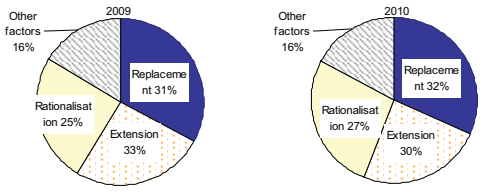
Source: Commission services.

*Balances are the weighted averages of the percentages of answers describing each factor as 'very stimulating' (coefficient 1), 'stimulating' (0.5), 'limiting' (-0.5) and 'very limiting' (-1). The answers which do not mention any of these descriptions are not taken into account in calculating these percentages.

Investment structure

Within the Investment survey, firms are also asked to assign their investments to four categories: replacement of worn-out plant or equipment, extension of production capacity, investment designed to streamline production (rationalisation), and other investment objectives (pollution control safety, etc.). In both 2009 and 2010, the largest share of investments goes to replacement (see Chart 5). The share of investment earmarked for extension is expected to drop to the second position in 2009 and the third in 2010, while this was the main reason for investment in 2008. This is in line with the fact that capacity utilisation hit its historically lowest level in 2009. Investment to streamline production is expected to be an equally important factor. It is clear that companies are attempting to cut their costs in a period of economic difficulties, with falling demand and deteriorating financial conditions.

Chart 5: Investment structure, percentage of total investment



Source: Commission services.

Developments by country

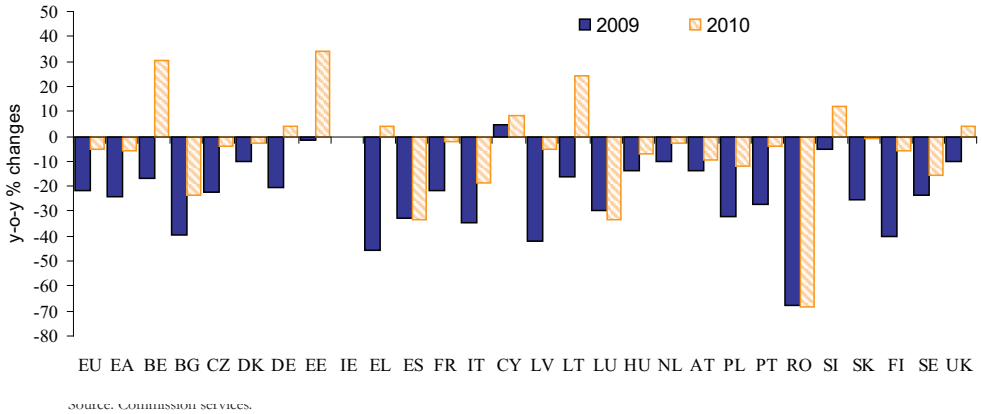
According to Eurostat figures, Gross Fixed Capital Formation (GFCF) grew in 2008 in Germany (+3.1%), the Netherlands (+4.9%), Poland (+8.2%) and France (+0.6%) while it decreased in the UK (-3.3%), Spain (-4.4%) and Italy (-3.0%).

In 2009, according to the survey, a further decrease is expected for the EU as a whole and in all Member States, with the exception of Cyprus, which is expected to grow slightly in 2009 (see Chart 6).

In the largest Member States, managers' assessment of their investment for 2009 is more negative than that reported in spring and the downward revision has been particularly strong in Germany and in Spain.

Investment is now estimated to drop by 21% in Germany, by 33% in Spain and by 22% in France. In line with the spring estimates, investment is expected to contract by 34% in Italy, by 32% in Poland and 10% in the Netherlands and the UK.

Chart 6: Surveyed change of investments in the EU member states, annual percentage changes

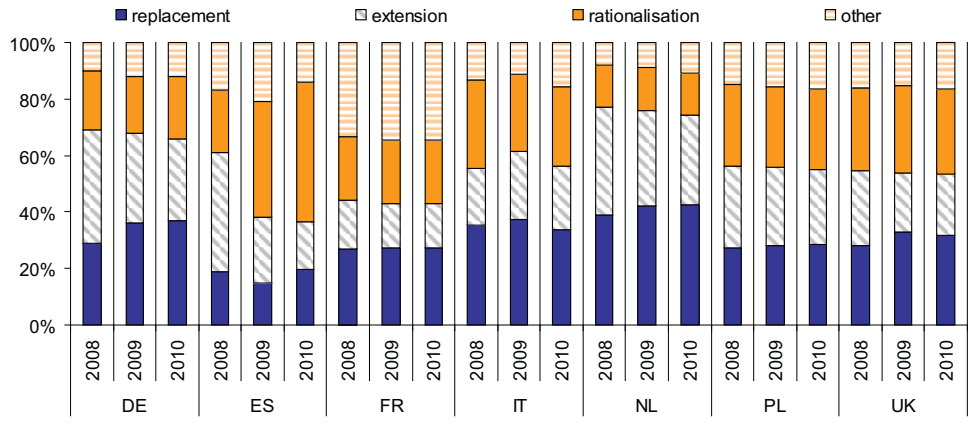


Source: Commission services.

The structure of investment varies across countries (see Chart 7). Nevertheless, in all the largest Member States except for France, investment mainly serves replacement or rationalisation needs. France stands out as the country allocating the highest share of investments for other objectives, such as pollution control and safety, and the least to extension. Concerning 2010, the structure of investment in the large Member States is expected to remain broadly unchanged. In Spain, however, we can observe a shift of investment from capacity extension and other factors towards replacement and rationalisation.

It should be noted that such differences may exist because countries are in different phases in their investment cycle, but may also depend on the structure of the economies.

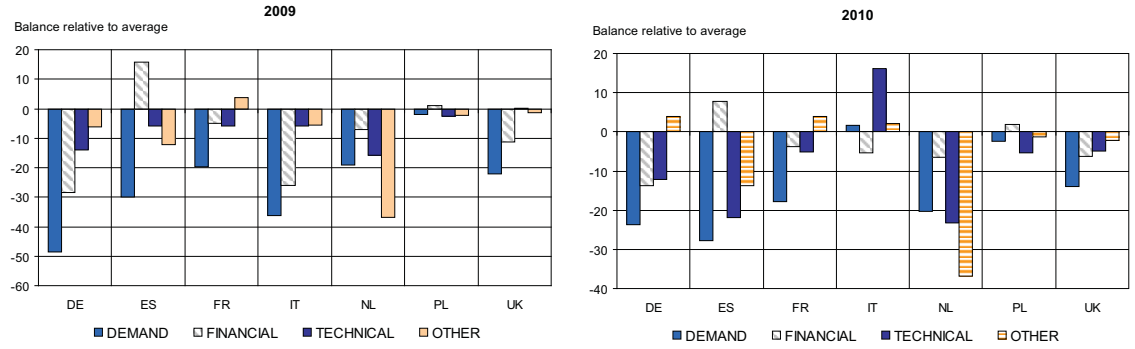
Chart 7: Structure of investments in the big Member States in 2008, 2009 and 2010



Source: Commission services.

Chart 8 shows that demand and financial conditions are the two main factors limiting investments in 2009 in the majority of large Member States. In 2010, demand will remain the main factor limiting investment in all large Member States except Italy and the Netherlands. In Italy, demand should become a factor in driving investments. In the Netherlands, technical and other factors will be the main reasons behind the decline in investments. Under the heading "others", managers usually include taxation or relocation aspects, but other reasons may relevant in these case. Spanish managers' positive view about financial conditions is somewhat at odds with the financial crisis that the EU is experiencing, but there may be other domestic factors that bring about this result.

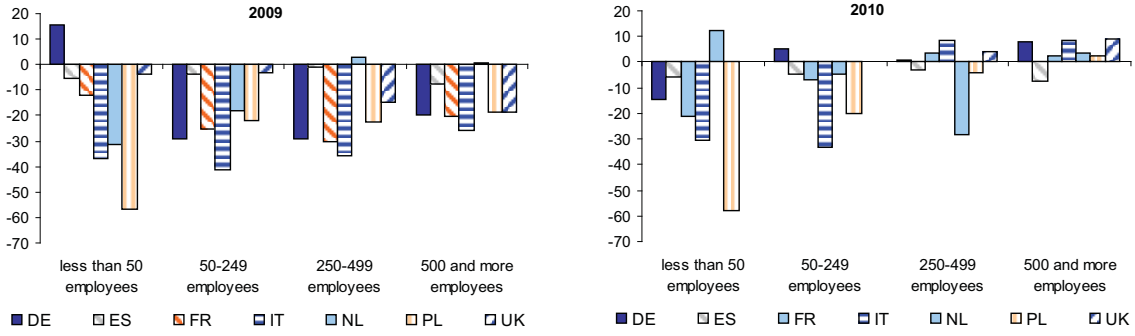
Chart 8: Actors influencing investment decisions in 2009 and 2010, mean-adjusted balances (0 is the indicator's historical average)



Source: Commission services.

Looking at the breakdown by size of the enterprises (see Chart 9) across countries, the situation in 2009 appears to be negative across all size categories. Only small enterprises in Germany and large and very large firms in the Netherlands report an increase in their investment in 2009. In 2010 the situation is more mixed across countries and enterprise size.

Chart 9: Surveyed change of investments in by size, annual percentage changes



Source: Commission services.

Annex 1: Technical Background

Reference series

The reference series are from Eurostat, via Ecowin:

Confidence indicators	Reference series (volume, year on year growth rates)
Total economy (ESI)	GDP, seasonally- and calendar-adjusted
Industry	Industrial production, working-day-adjusted
Services	Gross value added for the private services sector, seasonally- and calendar-adjusted
Consumption	Household & NPISH final consumption expenditure, seasonally- and calendar-adjusted
Retail	Household & NPISH final consumption expenditure, seasonally- and calendar-adjusted
Building	Production Index, Building and civil engineering, Trend-cycle component

Notes: Monthly data are obtained through a linear interpolation of quarterly data.

Economic Sentiment Indicator

The Economic Sentiment Indicator (ESI) is a weighted average of the balances of selected questions addressed to firms and consumers in five sectors covered by the EU BCS Programme:. The sectors covered are Industry (weight 40%), Services (30%), Consumers (20%), Retail (5%) and Construction (5%).

Balances are constructed as the difference between the percentages of respondents giving positive and negative replies. The Commission calculates EU and euro area aggregates on the basis of the national results and seasonally adjusts the balance series. The indicator is scaled to have a long-term mean of 100 and a standard deviation of 10. Thus, values greater than 100 indicate an above-average economic sentiment, and vice-versa. More detail on the construction of the ESI could be found on the following link:

http://ec.europa.eu/economy_finance/publications/publication7568_en.pdf

Long-time series of the ESI and confidence indicators are available at:

http://ec.europa.eu/economy_finance/db_indicators/surveys9185_en.htm

Economic Climate Tracer

The Economic Climate Tracer is the result of a two steps procedure. The first one consists in building Economic Climate Indicators. They are based on principal component (PC) analyses of balance series (s.a.) from the surveys conducted in industry, services, building, retail trade, and among consumers. For the industry sector, five of the monthly questions in the industry survey are used as input variables (employment and selling-price expectations are excluded). The respective number of input series for the other sectors is: services: all five monthly questions; consumers: nine questions (price-related questions and the question inquiring the current financial situation are excluded); retail: all five monthly questions; building: all four monthly questions. In the euro area case, the first principal component explains between 65% (retail) and 92% (industry) of the variance of the input balance series in question.

The Economic Climate Indicator (ECI) is a weighted average of the five PC-based sector Climate Indicators. The sector weights, which correspond to those underlying the Economic Sentiment Indicator (ESI), are: Industry: 40%; Services: 30%; Consumers: 20%; Building: 5% and Retail trade: 5%. The weights were allocated broadly according to the two criteria: representativeness of the sector in question, and historical tracking performance vis-à-vis GDP growth.

In the second step of the procedure, all climate indicators were smoothed using the HP filter in order to eliminate short-term fluctuations of a period of less than 18 months. The smoothed series were then standardised to a common mean of zero and standard deviation of one. The resulting series are plotted against their first differences. The four quadrants of the graph, corresponding to the four busi-

ness cycle phases, are crossed in a counter-clockwise movement. The phases can be characterised as follows: above average and increasing (upper-right, "expansion"), above average but decreasing (upper-left, "downswing"), below average and decreasing (lower-left, "contraction") and below average but increasing (lower-right, "upswing"). Cyclical peaks (troughs) are positioned in the upper (lower) centre of the graph.

Markov Switching Turning Point Index

The Turning Point Index model, inspired by the work of Grégoir and Lenglart (2000) , aims at identifying developments in economic activity growth for the euro area, using as input all the confidence indicators derived from the surveys, namely for Industry, Services, Building, Retail Trade and Consumer. This model is symmetric in signalling turning points. One could consider that values of the TPI within the ±0.25 range imply stabilisations moments, when the pace of activity is around its potential (the signal received are very varied and indicate no clear-cut upward or downward movement). The economy performs a soft landing or soft takeoff, depending on whether the previous period experienced an acceleration or deceleration. By contrast, the signal is very consistent when values of the TPI get very close or reach ±1: the cyclical phase is deemed to be clearly favourable or unfavourable; economic activity is in a period of sharp acceleration (or sharp deceleration, or even contraction).

1 Grégoir S. and Lenglart F. (2000), "Measuring the probability of a business cycle turning point by using a multivariate qualitative hidden Markov model", Journal of Forecasting, n° 19.